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Recipients of Jet Propulsion Laboratory Telecommunications and Data Acquisition Progress Report 42-71

Subject: Errata

In the article entitled "Performance of Concatenated Reed-Solomon/Viterbi Channel Coding" by D. Divsalar and J.H. Yuen, in JPL TDA Progress Report 42-71, please note the following corrections:

In the seventh line from the bottom of page 83 the term $\pi/(M-1)$ should be replaced by $\pi_j/(M-1)$. Hence Eqs. (7), (12), (A-2), and (A-4) should read:

$$\Pr\left\{W_i = 0\right\} = \frac{\pi_j}{M-1} < \frac{\pi}{M-1}$$

$$\Pr\left\{W_i = 1\right\} = 1 = \frac{\pi_j}{M-1} < 1 \tag{7}$$

$$\Pr\left\{W = i\right\} \leq \binom{n}{i}\left(\frac{\pi}{M-1}\right)^{n-i} \tag{12}$$

$$E\left\{e^{-\lambda W}\right\} \leq \left(\frac{\pi}{M-1} + e^{-\lambda}\right)^n \tag{A-2}$$

$$\Pr\left\{x_0 \to x_n\right\} \leq \min_{\lambda>0} e^{\lambda t}\left(\frac{\pi}{M-1} + e^{-\lambda}\right)^n \cdot \left(1 - \pi + \pi\, e^{-\lambda}\right)^{N-n} \tag{A-4}$$

On page 85, Eq. (19) is an approximation. On page 89, in Fig. 3, the transition error probabilities should be $\pi_j/(M-1)$; $j = 1, 2, \ldots, M-1$.

Since decoding error probability is very small with respect to decoding failure probability (see Eq. (22)), the results in the article are unaffected.

Very truly yours,

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